Appln. No.: 10/659,478

Amendment Dated July 9, 2007

Reply to Office Action of May 11, 2007

Amendments to the Specification:

Please replace the paragraph, beginning at page 8, line 5, with the following rewritten paragraph:

Referring now to the drawing, wherein like reference numerals refer to like elements throughout, Figs. 3A - 3C illustrate an exemplary introducer according to the present invention for endoluminal deployment of a stent inside of a biocompatible graft cover without obstructing endoluminal fluid flow during deployment. As shown in Figs. 3A-C, exemplary stent delivery system 40 comprises a member such as a stent sheath 42, a compressed stent 44 underlying the stent sheath, a pusher 46 underlying the stent sheath proximal to the stent, an inner core 48, and a compressed biocompatible graft 50 overlying distal end 52 of the stent sheath. Inner core 48 is axially mounted within inner lumen 56 of pusher 46, extends axially through stent 44 and attaches to tip 58 comprising tip sheath 60 overlying distal end 62 of the stent. Optional central guidewire lumen 49 (not shown in Fig. 3A) runs through inner core 48 and tip 58, as shown in Figs 3B and 3C. Graft 50 has a distal end 64 attached to the stent by attachment 51 distally of the sheath distal end 52. Optionally, attachment 51 may be located at or somewhat proximally of the distal end 52 of sheath 42 within sheath 42, so long as the part of graft 50 lying within sheath 42 is easily pulled or otherwise disposed distally of sheath 42 during deployment. Graft 50 further has a proximal end 66 attached to stent sheath 42 by a releasable attachment_or member, such as suture 68, adapted to be released during deployment of the stent. As shown in Figs. 3A-C, pusher 46 has a rounded distal end 47.

Please replace the paragraph, beginning at page 10, line 15, with the following rewritten paragraph:

Different releasable attachment devices other than sutures may also be used. In an alternative embodiment, referring now to Figs. 4A and 4B, a member, such as a crochet weave 80, may be disposed over proximal end 66 of graft 50 to secure it to stent sheath 42. As shown in detail in Fig. 4B, crochet weave 80 comprises a continuous filament 82 wound into n successive loops 84i-n helically wrapped around the graft in alternating orientations (loop 84i counterclockwise, loop 84ii clockwise, loop 84iii counterclockwise, and so on, viewed from loop 84i looking proximally), the stem 86 of each loop protruding through the hole 88 made by the preceding loop. Distal end 90 of filament 82 is typically releasably secured to provide resistance to unwinding of crochet weave 80, such as by being pulled through a slot 91 in tip sheath 60 and pinched therein. Proximal end 92 of the filament is tucked within through-hole

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74 in stent sheath 42, as shown in Fig. 4A, and trailed within the stent sheath to the outside of the body. Filament 82 may then be pulled like a drawstring to untie crochet weave 80 loop by loop and to pull distal end 90 out of slot 91. Although Fig. 4A shows sheath 42 and graft 50 in longitudinal section to illustrate through-hole 74 and trailing proximal end 92, crochet weave 80 is illustrated in its entirety without hidden portions, to show location. Fig. 4B shows crochet weave 80 as visible from one side of graft 50.

Please replace the paragraph, beginning at page 11, line 5, with the following rewritten paragraph:

In another alternative embodiment, referring now to Fig. 5, graft 50 may be tacked to stent sheath 42 with a member, such as a bead of biocompatible adhesive 100, that softens or dissolves after a certain amount of time of exposure to blood (or other intraluminal fluid in the lumen in which the stent is to be deployed), thus allowing the graft to be pulled away from stent sheath 42 upon deployment.

Please replace the paragraph, beginning at page 11, line 25, with the following rewritten paragraph:

Introducer 40 is used to carry out a method for endoluminally deploying a stent and overlying graft without blocking endoluminal fluid flow during deployment, as shown in Figs 7A-D. First, stent 44 and overlying graft 50 are compressed and loaded into stent delivery system 40 having the components previously described herein and assembled as shown in Fig. 3A. Next, the stent delivery system is navigated to a desired deployment location over a guidewire (not shown) or by other means known in the art. Then, at the deployment location, stent distal end 62 is released by moving inner core 48 distally relative to stent sheath 42 along arrow Z, as shown in Fig. 7A. Stent distal end 62 is uncovered in an expanded configuration. Then, stent sheath 42 is retracted proximally relative to stent 44 along arrow Y, thus pulling suture 68 in window 76 across cutter 70 of pusher 46 and severing the suture as shown in Fig. 7B. With suture 68 cut, graft 50 expands so that blood or other endoluminal fluid flows along arrows B through stent 44 and between stent sheath 42 and the graft, as is shown in Fig. 7C. Suture 68 is retained on stent sheath 42 in two pieces, each piece tied at one end through tieholes 72 in the stent sheath and carried by the motion of the stent sheath and the endoluminal fluid flow in the direction of arrow B. Stent sheath 42 is retracted along arrow Y until stent 44

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is completely deployed in a configuration biasing graft 50 against the walls 19 of the body lumen 20, as shown in Fig. 7D.